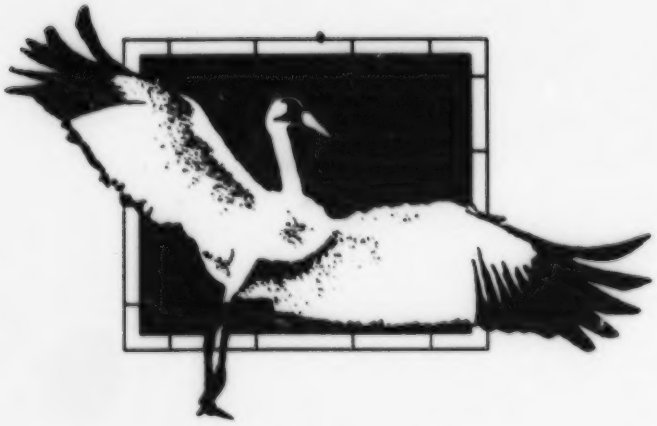
RESPONSE STATEMENTS

FOR EXTIRPATED, ENDANGERED AND THREATENED SPECIES LISTED BY THE COMMITTEE ON THE STATUS OF ENDANGERED WILDLIFE IN CANADA (COSEWIC) IN 2001



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Canadian Endangered Species Conservation Council

About Response Statements

Purpose

A response statement is a communications document that describes the existing conservation measures federal, provincial and territorial jurisdictions have in place to protect and/or recover species newly assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as extirpated, endangered or threatened. Jurisdictions may also use response statements as a means of communicating proposed protection measures or initiating coordinated recovery planning.

Who prepares a response statement?

One or more jurisdictions may be involved in the preparation of a response statement for a given species. A collaborative approach is used where species occur in more than one jurisdiction. Jurisdictions include three federal government agencies (Environment Canada, Fisheries and Oceans Canada, Parks Canada) and provincial and territorial government agencies.

When are response statements prepared?

Soon after the designation of new species by COSEWIC, relevant jurisdictions work collaboratively, aided by the Recovery Secretariat at Environment Canada, to identify the lead and other responsible jurisdictions who will be involved in the development of the response statements.

Disclaimer

Information in the response statement is preliminary. The "Immediate Conservation and Protection Measures" section and other information in these response statements is preliminary and is not intended for legal interpretation. The proposed recovery approach and actions may be modified as a result of new findings and / or budgetary restraints.

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Responsible Jurisdictions

AB - Alberta
BC - British Columbia
EC-CWS - Environment Canada - Canadian Wildlife Service
DFO - Fisheries and Oceans Canada
MB - Manitoba
NB - New Brunswick
NF - Newfoundland and Labrador
NS - Nova Scotia
NT - Northwest Territories
NU - Nunavut
ON - Ontario
PCA - Parks Canada Agency
PE - Prince Edward Island
QC - Quebec
SK - Saskatchewan
YT - Yukon

1. Response Statement for Tiger Salamander [Great Lakes population]

By Responsible Jurisdiction: Ontario

COSEWIC Species Information

Common Name: Tiger Salamander [Great Lakes population]

Scientific Name: *Ambystoma tigrinum*

Assessment Summary
COSEWIC Status: Extirpated

Reason for Designation: This salamander was last seen in southern Ontario in 1915 at Point Pelee. Despite repeated inventories over the last 80 years, it has not been seen since that time.

Occurrence: Ontario

COSEWIC Status History: Designated Extirpated in November 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

The Tiger Salamander is listed as a Specially Protected Amphibian in Schedule 10 under Ontario's Fish and Wildlife Conservation Act (FWCA). This protects the species against killing, capture, hunting or trapping with certain exceptions where the Minister may authorize the keeping of specially protected species in captivity for educational or scientific purposes. The FWCA also controls the possession, buying, selling or trading of the species.

Current or immediate recovery actions:
No actions are planned at this time. It has not been observed in the wild since 1915.

Preliminary Recovery Information

Recovery feasibility: Species has not been reported since 1915 (one report only). Recovery not feasible at this time. To be determined if a National Recovery Team is formed.

Recovery approach: To be determined if a National Recovery Team is formed.

Responsible jurisdiction and representative:
ON: Steve Bowcott, Ontario Ministry of Natural Resources, Peterborough, ON

2. Response Statement for Tiger Salamander [Southern Mountain population]

By Responsible Jurisdictions: British Columbia and Environment Canada-Canadian Wildlife Service (Pacific and Yukon Region)

COSEWIC Species Information

Common Name: Tiger Salamander [Southern Mountain population]

Scientific Name: *Ambystoma tigrinum*

Assessment Summary

COSEWIC Status : Endangered

Reason for Designation: Tiger salamanders in this region have suffered greater than 50% loss of available breeding habitat, largely through degradation and stocking with predatory fish. Human population growth in the region is also resulting in significant loss of habitat for terrestrial adults.

Occurrence: British Columbia

COSEWIC Status History: Designated Endangered in November 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

BC: The Tiger Salamander is designated as wildlife under the BC Wildlife Act, and is protected from killing, wounding, trapping, hunting, taking, export, and import. It is Red-listed by the BC Conservation Data Centre, and hence is a candidate for legal designation as endangered or threatened under the Wildlife Act. Some breeding sites are in protected areas and other lands managed for conservation purposes, such as lands managed by environmental non-government organizations.

EC-CWS: federal species at risk legislation is pending but not yet in place. Tiger Salamanders occur on federal lands in the South Okanagan-Similkameen region, including a National Wildlife Area, federal research sites and Indian Reserves.

Current or Immediate Recovery Actions: The Tiger Salamander occurs within the purview of the South Okanagan-Similkameen Conservation Program (SOSCP), which takes a landscape-based approach to the conservation of species at risk. Partners in the SOSCP have undertaken projects using various land management tools, including acquisitions of private lands. Currently this program protects three suspected hibernacula occurrences. A Recovery Action

Group to cover the Tiger Salamander will be organized by SOSCP, and a Recovery Strategy and Action Plan(s) will subsequently be developed. Environment Canada and the province of British Columbia are active partners in SOSCP.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing to nationally Threatened) may be feasible. The biology of the Tiger Salamander in Canada is largely unknown but has received some attention recently. Recovery feasibility should be re-assessed once population levels and habitat requirements are better understood.

Recovery approach: The SOSCP's strategies are to "expand community involvement, promote ecologically sustainable land-use, enhance stewardship on private and public land, and negotiate acquisition of key habitats." Partner agencies involved in land management in the region include: Environment Canada-Canadian Wildlife Service; the Ministry of Water, Land and Air Protection; the Nature Trust of BC; the Land Conservancy; the Nature Conservancy of Canada; and the Grassland Conservation Council of BC. Important stakeholders such as landowners and First Nations groups are regularly consulted by the SOSCP, and their involvement will be integral to the recovery of the Tiger Salamander.

Interim actions will focus on areas where Tiger Salamanders are known to occur through stewardship, acquisition, and public education. Information to managers and the general public needs to be disseminated regarding the biodiversity implications to the stocking of fishless systems, as well as the management and protection of ephemeral water supplies.

Lead jurisdiction:
Environment Canada-Canadian Wildlife Service and British Columbia will be co-leads for this species.

Other responsible jurisdictions / representatives:
SOCP partners
First Nations Groups

Deadline for the production of the national recovery strategy: Within one year of listing. Recovery actions are being developed within the SOSCP.

3. Response Statement for Piping Plover, *circumcinctus* subspecies

By Responsible Jurisdictions: Environment Canada-Canadian Wildlife Service (Prairie and Northern Region); Alberta, Saskatchewan, Manitoba, Ontario

COSEWIC Species Information

Common Name: Piping Plover *circumcinctus* subspecies

Scientific Name: *Charadrius melodus circumcinctus*

Assessment Summary

COSEWIC Status: Endangered

Reason for Designation: Number of breeding pairs in Canada is small and trend in population size of this subspecies is negative. Reproductive success is low, especially in years of drought. Habitat quality is decreasing.

Occurrence: Alberta, Saskatchewan, Manitoba, Ontario

COSEWIC Status History: Entire Canadian population designated Threatened in April 1978. Status re-examined and uplisted to Endangered in April 1985. In May 2001, the species was re-examined and split into two groups according to subspecies. The *circumcinctus* subspecies was designated Endangered in May 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

EC-CWS: currently protected under the Migratory Bird Convention Act (species, nests, eggs). Protection for habitat is provided under the Canada Wildlife Act for Piping Plovers occurring on National Wildlife Areas (e.g., Last Mountain Lake, Long Point, St. Clair). Various projects (implemented and proposed) targeting Piping Plover under the federal Habitat Stewardship Program for Species at Risk.

ON: Piping Plover is protected in regulation under Ontario's Endangered Species Act. The Act prohibits willful harm to regulated species; willful destruction of, or interference with, their habitats.

MB: currently designated as Endangered under the Manitoba Endangered Species Act; prohibitions include: possession; killing, injuring, disturbing or interfering with species at risk; destroying, disturbing or interfering with species-at-risk habitat; obstructing or removing, destroying, damaging a natural resource upon which a species at risk depends on.

SK: currently designated as Endangered under the Saskatchewan Wildlife Act; prohibitions include: possession; killing, injuring, disturbing or interfering, harvesting, genetically manipulating, capturing or taking a species at risk; destroying, disturbing or interfering, species-at-risk habitat.

AB: currently designated as Endangered under the Alberta Wildlife Act; prohibitions include: possession; killing, injuring, disturbing or interfering with the species; destroying, disturbing or interfering with nests or dens.

Current or immediate recovery actions:

EC-CWS: The National Recovery Plan for both *circumcinctus* and *melodus* subspecies has been published and is available online (http://www.cws-scf.ec.gc.ca/es/piping_e.pdf). Implementation of the recovery plan is underway. Regional recovery coordination is provided through chairing the prairie recovery team and maintaining links with the United States Fish and Wildlife Service, The Nature Conservancy and the United States Geological Service. Federal species at risk programs, administered by EC-CWS, have supported various conservation actions including productivity, movements, foraging and diet research; conservation planning for the Lake Diefenbaker (SK) plover population; guardianship programs; updating of the regional web site; habitat protection; and the international census.

ON: Participated in the 3rd International Piping Plover census; population monitoring.

MB: Participated in the 3rd International Piping Plover census; population monitoring; habitat protection; facilitating a guardianship program at Lake Winnipeg.

SK: Participated in the 3rd International Piping Plover census; developing a Lake Diefenbaker Piping Plover conservation plan with partners.

AB: Provincial recovery team formed in 2001 and recovery plan completion anticipated in 2002; predator exclosures placed over nests have increased egg hatching success at some AB lakes; participated in the 3rd International Piping Plover census. Annual monitoring of occupancy and breeding success on most key lakes in the province.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing to nationally of special concern) is uncertain as further population data are required. Continued management intervention will be required for this species.

Recovery approach: Responsible jurisdictions will through the prairie recovery team and their agencies contribute to implementing the recovery strategy and any recognized recovery action plans. The national recovery strategy, which was published in March 2002, provides the key elements necessary for recovery actions. The recovery strategy will be periodically updated and recovery progress evaluated. The recovery strategy will serve as the basis for regional recovery action plans. Recovery delivery will occur at a provincial scale, but linkages at the regional, national and international levels will facilitate the sharing of data and techniques, provide a forum for dealing with common issues and coordinating a consistent approach to recovery, where applicable. Recovery actions will be implemented in consultation with partners, significant stakeholders, and others as appropriate.

Lead jurisdiction / representative: Development and implementation of recovery strategies and action plans will be led by the responsible jurisdiction, whose representative will participate in the recovery team to ensure overall coordination of efforts. EC-CWS (Prairie and Northern Region) will lead in coordinating the regional strategy development (contact:: Paul Goossen).

Other responsible jurisdictions / representatives:

AB: Dave Prescott; **SK:** Earl Wiltse; **MB:** Ken De Smet; **ON:** Leo Heyens

Deadline for the production of the national recovery strategy: A recovery plan was published in March 2002 that covers both *melodus* and *circumcinctus* subspecies. This recovery plan will be in effect for three years before being revised. Recovery action plans are being developed to support the implementation of the recovery strategy/recovery plan.

4. Response Statement for Piping Plover, *melodus* subspecies

By Responsible Jurisdictions: Environment Canada-Canadian Wildlife Service (lead - Atlantic Region, with assistance of Quebec Region); Quebec, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Labrador, and Parks Canada Agency

COSEWIC Species Information

Common Name: Piping Plover *melodus* subspecies

Scientific Name: *Charadrius melodus melodus*

Assessment Summary

COSEWIC Status: Endangered

Reason for Designation: The number of individuals breeding in Canada is low and reproductive success is limited by nest predation and other disturbances. Despite important conservation initiatives, the trend in numbers of breeding pairs apparently is still negative. Nesting habitat quality also is decreasing.

Occurrence: Quebec, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Labrador

COSEWIC Status History: Entire Canadian population designated Threatened in April 1978. Status re-examined and uplisted to Endangered in April 1985. In May 2001, the species was re-examined and split into two groups according to subspecies. The *melodus* subspecies was designated Endangered in May 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

EC-CWS: The Piping Plover is protected as a "migratory game bird" under the Migratory Birds Convention Act (1994). Protection against wilful damage to the birds, their nests and eggs is provided through this legislation.

NB: currently designated as Endangered under Endangered Species Act; prohibitions include: possession; willfully or knowingly killing, injuring, disturbing or interfering with the species or any part thereof or willfully or knowingly attempting to do so; willfully or knowingly destroying, disturbing or interfering with a nest or willfully or knowingly attempting to do so; willfully or knowingly destroying, disturbing or interfering with the critical habitat or willfully or knowingly attempting to do so.

NS: currently designated as Endangered under the Endangered Species Act; prohibitions include: killing, injuring, possessing, disturbing, taking or interfering with the species or any part thereof or attempting to do so; possessing for sale, offering for sale, selling, buying, trading or bartering the species or any part thereof; destroying, disturbing or interfering with the specific dwelling place or

area occupied or habitually occupied by one or more individuals or populations including the nest; contravening any regulation made with respect to core habitat; or contravening an order made pursuant to a species listed on a precautionary basis.

NF: currently designated as Endangered under the Endangered Species Act; recovery actions have been initiated by provincial authorities.

PE: currently not listed in the province; the Wildlife Conservation Act provides Minister with the power to establish an advisory committee to create a list of endangered, threatened and vulnerable species; recovery actions are currently coordinated by provincial authorities.

QC: currently designated as Threatened under the "Loi sur les espèces menacées ou vulnérables". There are no provisions for protection of habitat at this time under this legislation.

PCA: The Piping Plover is listed under Schedule 3 Part 1 of the Canada National Parks Act; under this category, the highest penalties possible are imposed for killing, injuring, seizing, capturing, trapping, trafficking and possessing individuals or parts of animals in national parks.

Current or immediate recovery actions:

EC-CWS: The National Recovery Plan for both *circumcinctus* and *melodus* subspecies has been published and is available online (http://www.cws-scf.ec.gc.ca/es/piping_e.pdf). Implementation of the recovery plan is underway.

Coordination of the federal Habitat Stewardship Program (HSP) is provided by Environment Canada-Canadian Wildlife Service. Funding provided through the HSP has resulted in a core base of resources for the Coastal Guardian Program in all jurisdictions, essentially resulting in more effective species protection effort for programs that have been in existence for over ten years. A banding research program aimed at better understanding population dynamics of the *melodus* subspecies will address questions of juvenile recruitment into the regional population, determine links with other populations, identify important wintering grounds, help establish migration and distribution patterns. Coordination of the recovery program is provided through chairing the recovery team and maintaining links with United States Fish and Wildlife Service and other agency protection efforts.

NB: The provincial Department of Natural Resources and Energy is involved in public education programs and enforcement to increase compliance of laws restricting use of all-terrain vehicles in wetland (including beach) habitats. Buffer zones of 50 metres around nests have also been established on nest sites which are at risk. Provincial staff also assist in conducting surveys and providing

assistance to Coastal Guardian Programs delivered by the Irving Eco-Centre in southeastern New Brunswick and the Piper Project in the Acadian Peninsula.

NS: The provincial Department of Natural Resources has been involved in population monitoring, public education, stewardship and enforcement for many years. Staff conduct annual surveys of beach habitats and on all potential sites during International Census count years. Education and extension has focused on schools in southwestern Nova Scotia to raise awareness of threats and actions by the public that negatively affect plover recovery efforts. Enforcement action is being undertaken to increase compliance with laws restricting the use of all-terrain vehicles on beaches that afford plover habitat. The province has worked cooperatively with non-government organizations (Nova Scotia Nature Trust, Nova Scotia Bird Society), the public and federal partners to re-vamp the Beach Guardian Program to affect better stewardship across the province.

NF: The provincial Department of Tourism, Culture and Recreation has been involved in monitoring and protection efforts. According to available resources, staff conduct annual counts at known beaches and on all potential sites during International Census. A wildlife reserve has been established at Burgeo specifically for the protection of the Piping Plover. Protection measures for Piping Plover have been implemented at Cheeseman Provincial Park. A provincial stewardship program has recently been re-focused to make Piping Plover a priority for establishing conservation programs. Provincial input is provided for the delivery of the Beach Guardian Program in cooperation with the Marine and Mountain Zone Corporation. Additional reserves as well as protection under ATV [all terrain vehicle] regulations are being considered.

PE: The provincial Department of Fisheries, Aquaculture and Environment coordinates the efforts of the Island Nature Trust which delivers the Beach Guardian Program outside Prince Edward Island National Park. Provincial staff also provide assistance by responding to enforcement issues, conducting some nest monitoring and guardianship activities and participating in the International Census.

QC: A protection program using symbolic fencing and predator exclosures is implemented every year through the efforts of Attention Fragîles. This non-government organization has also been involved in public education for many years. Efforts of the organization are coordinated by EC-CWS (Quebec Region).

PCA: Intensive protection and monitoring programs are implemented annually in three National Parks: Kejimkujik Seaside Adjunct, Kouchibouguac and Prince Edward Island. Park protection strategies vary among parks, according to necessity . All three National Parks have active interpretation programs to educate park visitors regarding the Piping Plover and restrict public access to nesting sites from the time nesting territories are established until the juvenile birds have fledged. Predator exclosures are used in areas when appropriate

and/or where nest predation is problematic. Predator removal has been conducted in the Kejimkujik Seaside Adjunct.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing to nationally of special concern) is feasible. Continued management intervention will be required for this species.

Recovery approach: Responsible jurisdictions will continue to participate as possible in a recovery team that will identify as required the need for developing further efforts such as drafting and implementation of a recovery strategy, establishment of provincial working groups and recovery action plans. The recently published national recovery plan provides the necessary focus required in a recovery strategy. The recovery team will also identify the need for periodic updating the recovery strategy and evaluate progress made towards recovery. The recovery plan or national recovery strategy will connect provincial recovery action plans in an overall framework. Program coordination will be completed on a regional basis. Delivery of recovery efforts will occur at a local (provincial / national park) scale, but linkages at the regional level will facilitate the sharing of data and techniques, provide a forum for dealing with common issues and ensure a consistent approach to recovery. A regional / national process will be needed to ensure a broad perspective on the status of Piping Plover is maintained. A regional process will also greatly facilitate the development of effective provincial action plans. Recovery strategies and action plans will be developed in consultation with working group partners, affected aboriginal groups, significant stakeholders, and others as appropriate.

Lead jurisdiction / representative: Development and implementation of recovery strategies and action plans will be led by the responsible jurisdiction, whose representative will participate in the recovery team to ensure overall coordination of efforts. EC-CWS will lead in coordinating the regional strategy development (contacts: Diane Amirault (Atlantic Region) and François Shaffer (Québec Region)).

Other responsible jurisdictions / representatives:
NB: Lee Swanson; **NS:** Mark Elderkin; **NF:** Joe Brazil; **PE:** Rosemary Curley; **QC:** Stan Georges; **PCA:** Kim Mawhinney

Deadline for the production of the national recovery strategy: A recovery plan was published in March 2002 that covers both *melodus* and *circumcinctus* subspecies. This recovery plan will be in effect for three years. Recovery action plans will be developed as required to support the implementation of the recovery strategy/recovery plan.

5. Response Statement for Atlantic Salmon [inner Bay of Fundy populations]

By Responsible Jurisdictions: Fisheries and Oceans Canada, New Brunswick, Nova Scotia and Parks Canada Agency

COSEWIC Species Information

Common Name: Atlantic salmon [inner Bay of Fundy populations]

Scientific Name: *Salmo salar*

Assessment Summary

COSEWIC Status: Endangered

Reason for Designation: Numbers comprising the Inner Bay of Fundy populations of this medium-sized, schooling, anadromous fish may be less than 500. Populations of wild salmon in the region have all declined since the 1920s, and data for the Stewiacke and Big Salmon Rivers indicate declines of 90 % in recent years. Threats include habitat alteration by forestry and agricultural practices, damming of rivers and estuaries, bycatch in shad and herring fisheries, competition from conspecifics that have escaped from aquaculture, and illegal fishing.

Occurrence: New Brunswick, Nova Scotia, (rarely Newfoundland and Labrador), Atlantic Ocean

Status History: Designated Endangered in May 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply: For some time now, this group of fish has been recognized by relevant resource management agencies and stakeholders to be in serious decline and various measures have been taken. Federally, the Fisheries Act has been used to prohibit any directed fishing activity (commercial, recreational or subsistence) on this population and the habitat protection provisions of the Fisheries Act are available to protect any marine, estuarine or freshwater habitat utilized by this species. Specifically, all salmon fisheries have been closed since 1990. In New Brunswick, the Fish and Wildlife Act and in Nova Scotia the Wildlife Act and their regulations describe provisions for the harvest of Atlantic salmon in various waters of the Provinces. Both provinces also have Clean Water Acts and the Crown Lands and Forests Acts include provisions for protection of aquatic habitats as well as Endangered Species Acts to further protect flora and fauna.

Other Actions already taken:

1. A gene banking program was initiated in 1998; there now are several hundred thousand eggs and juveniles from the two major Inner bay of Fundy

rivers in four separate facilities, two in New Brunswick (Mactaquac and Grand Lake) and two in Nova Scotia: Mersey and Coldbrook;
2. A breeding pedigree program has been developed in order to maximize genetic diversity in the gene banking program;
3. A restocking strategy has been developed in consultation with stakeholders;
4. Gene banking, the pedigree program and restocking strategy will be continued into the foreseeable future;
5. Scientists have attempted to identify the causes for losses, particularly in the marine environment by tagging and tracking smolt since 1999 (expanded the program in 2001), which tried to identify where and when post-smolts are lost in the marine environment;
6. Jurisdictions have formed a multi-stakeholder team in 1999 to oversee and advise on measures to conserve, protect and recover these salmon. This team is comprised of all relevant federal and provincial agencies, First Nations and stakeholders (local river associations, Atlantic Salmon Federation, etc.).
7. DFO and other stakeholders are examining the extent and impacts of tidal and other barriers to fish passage throughout the Bay of Fundy
8. Preparation of the Inner bay of Fundy salmon status report used by COSEWIC.
9. Formal reconstitution of the existing planning and advisory groups into an "Inner Bay of Fundy Recovery Team" to oversee the recovery planning for this population.
10. Through this Recovery Team, funded the development of a recovery strategy completed April 2002.

Immediate additional actions that will be undertaken:

1. Community education and enforcement to increase compliance of fishing restrictions and prohibitions.
2. The Recovery Team will follow up its Recovery Strategy by developing specific Action Plans to implement this recovery strategy.
3. Provide incremental funding in order to undertake necessary scientific activities to protect the remaining genetic stock as well as continue to monitor the population and to research causes for declines and poor survival.

Future additional actions that will be undertaken: Federal endangered species legislation has not yet been passed but is pending.

Preliminary Recovery Information

Priority Assessment: for some time now, the Inner bay of Fundy Atlantic salmon populations have been treated as a high priority by all responsible jurisdictions and key stakeholders.

Recovery feasibility: Recovery (down-listing to special concern) is considered feasible. Continued management intervention will be required for this species.

Recovery approach: Responsible jurisdictions and key stakeholders will participate on a Recovery Team that will identify the need for facilitating the development and implementation of a recovery strategy and subsequent action plans. A recovery strategy was completed in April, 2002. That recovery strategy identifies recovery goals for recent shorter term (i.e. last ~ 15 years) problems as well as for longer term (i.e. ~ last century) problems that these Inner bay of Fundy populations have faced. The recovery team will also identify the need for periodic updating of the recovery strategy and evaluate progress made towards recovery. The national recovery strategy will connect specified recovery action plans in an overall framework. Program coordination will be completed on a regional basis through the Recovery Team. Recovery strategies and action plans will be developed through the Recovery Team involving its members, that is, affected aboriginal groups, significant stakeholders, relevant jurisdictions and others as appropriate. Recovery planning will start with a single species recovery strategy.

Responsible jurisdiction / representatives:
DFO (Maritimes Region): L. Marshall, E. Kenchington, R. MacDonald, G. Stevens, R. Sweeney, H. Dupuis, P. Amiro

Participating jurisdictions / representatives:
PCA: R. Wissink; **NB:** P. Cronin, M. Sullivan; **NS:** M. Hill, M. Elderkin

6. Response Statement for Killer-whale [3 populations]

By Responsible Jurisdictions: Fisheries and Oceans Canada in consultation with Parks Canada and British Columbia

COSEWIC Species Information

Common Name: Killer-whale [Northeast Pacific southern resident population; Northeast Pacific northern resident population; Northeast Pacific transient population]

Scientific Name: *Orcinus orca*

Assessment summary

COSEWIS Status:
Endangered [Northeast Pacific southern resident population]
Threatened [Northeast Pacific northern resident population]
Threatened [Northeast Pacific transient population]

Reason for Designation:
Northeast Pacific southern resident population: This population is small (78 animals in 2001, all ages) and has declined by 20% from 1995-2001. Organochlorine levels are high and the whales are subject to high levels of boat traffic (including whale watching). Abundance of their primary prey, salmon, has also declined.

Northeast Pacific northern resident population: Population size is low and has declined by 7% over the past four years (population size in 2001 was 201 killer whales of all ages). Northern residents are subject to high levels of human interaction (boat traffic) and may be vulnerable to declines in the abundance of salmon and the effects of contaminants on reproduction and survival.

Northeast Pacific transient population: The transient population of killer whales consists of approximately 219 individuals (all ages), but there is no information on population trends. The animals carry high contaminant loads, which have potential negative effects on their survival and reproduction.

Occurrence: Pacific Ocean

COSEWIC Status History:
Northeast Pacific northern and southern resident populations: North Pacific "resident" populations designated Threatened in April 1999. Original listing split into two populations in November 2001. The Northeast Pacific southern resident population was designated Endangered in November 2001. The Northeast Pacific northern resident population was designated Threatened in November 2001. The most recent assessment was based on an existing status report with an addendum.

Northeast Pacific transient population : Designated Special Concern in April 1999. Status re-examined and uplisted to Threatened in November 2001. The most recent assessment was based on an existing status report with an addendum.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply: The Fisheries Act and Marine Mammal

Regulations prohibit any person from disturbing marine mammals, except when duly authorized to fish for a given species. There are no provisions to fish or hunt any cetaceans in British Columbia. Fisheries and Oceans Canada (Pacific Region) is currently working with stakeholders to develop a proactive management plan for the protection of marine mammals. Under consideration are amendments to the Marine Mammal Regulations, with the objective of providing enhanced protection for marine mammals from human disturbances. Proposed amendments would broaden the definition of disturbance to include any activity that disrupts a marine mammal's life processes. It is expected that new regulations will be more explicit in regulating the kinds of activities and the vicinity in which the activities may occur around marine mammals.

Guidelines for the appropriate viewing of marine mammals have been developed in consultation with other Federal and Provincial government departments and stakeholders. Through a public education campaign and stewardship projects, measures to educate, monitor and ensure compliance of both the eco-tourism industry and the public are underway.

Other Actions Already Taken: DFO provides routine enforcement patrols and responds to complaints where human activities are clearly observed to be causing a disturbance to marine mammals. There are few incidents of fisheries-killer whale interactions. DFO is prepared to respond to entanglement situations or coordinate recovery actions for sick or stranded animals.

The Oceans Act directs ecosystem-based approaches to resource management. Salmon management programs have begun to focus more on an ecosystem-based approach. Since 1998, significant conservation programs have been implemented for Pacific salmon species, resulting in a number of salmon populations showing significant signs of rebuilding. As salmon are a major prey species of resident killer whales, it is expected that these measures will benefit killer whale populations. Examination into the linkages between diet and long term health of killer whale populations is underway as part of the Species At Risk program.

With regard to contaminant based threats, Canada has worked nationally and regionally to reduce the introduction and formation of several classes of persistent and toxic chemicals into the killer whale habitat. PCBs and DDT were banned in the mid 1970s and pulp mills in BC have adopted new technologies and processes to eliminate the formation of dioxins and furans into coastal waters. Canada has spearheaded international efforts to establish a global framework to eliminate toxic pollutants (Stockholm Treaty on Persistent Organic Pollutants), and is one of two nations that have ratified this convention. DFO Science continues to assess the presence of new, unregulated chemicals of concern in the BC environment, particularly as they relate to marine mammals.

Preliminary Recovery Information:

Recovery Feasibility: Unknown at this time, although human activities thought to directly or indirectly impact the recovery of these populations can be addressed.

Recovery Approach: Develop a recovery strategy in concert with stakeholders, other federal departments and the provincial government. Preparation of a recovery strategy is proposed for 2003-2004.

DFO will continue to monitor distribution, abundance, and diet of these populations. In addition, research is underway to assess contaminant-associated health risks to these populations.

DFO will continue to monitor human activities that may be impacting the productivity of killer whales or affecting critical habitat. Enforcement of the existing Marine Mammal Regulations will continue. As an interim measure, efforts will be made through public education and stewardship programs to ensure compliance with marine mammal viewing guidelines.

Lead Jurisdiction and representatives: DFO is the lead jurisdiction and will initiate the implementation of the regional recovery planning process.
DFO (Pacific Region): M. Joyce, J. Ford
DFO (Headquarters, Ottawa): H. Powles

Deadline for Producing a National Recovery Strategy:

Initial recovery planning includes forming a Recovery Team that will meet in spring 2003. It is expected that the team will be composed of federal, provincial and multi-sector stakeholder representatives.

7. Response Statement for Mudpuppy Mussel

By Responsible Jurisdiction: Fisheries and Oceans Canada, Ontario

Species Information

Common Name
Mudpuppy Mussel

Scientific Name
Simpsonaias ambigua

Assessment Summary

Status
Endangered

Reason for Designation
Declines in extent of occurrence and area of occupancy; total population extremely fragmented, all 3 extant sites in one river [Sydenham]; entire population could be eliminated by a single upstream catastrophic even. Habitats already exposed to high silt loading from agricultural practices, pollution from point source and non-point sources; mudpuppy mussel is host specific, using only the mudpuppy as host. Any threats to mudpuppy are also threats to mussels.

Occurrence
Ontario

Status History
Designated Endangered in May 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

DFO: Mudpuppy is protected under the federal Fisheries Act, which prohibits the harmful alteration or destruction of habitat. The Ontario Fishery Regulations (made under the federal Fisheries Act) also require a licence for commercial harvest although this probably is not an issue for this species.

ON: The species has no legal designation in Ontario. The habitat may also receive protection under the provisions of the Provincial Policy Statement of the Planning Act.

Current or immediate recovery actions:
The species is being considered in the Sydenham River Recovery Plan, a watershed-based recovery plan which is currently being developed. The Sydenham River Stewardship Initiative which was implemented in the year 2000 is supporting landowner efforts to improve riparian habitat and reduce nutrient and sediment inputs that negatively affect mussels in the river. An awareness

initiative has been started to inform residents of the watershed of the significance of the Sydenham River and its biodiversity. Monitoring of mussels in the river is ongoing.

A Recovery Team has been formed to draft a similar watershed based recovery plan for the Thames River.

Preliminary Recovery Information

Recovery feasibility:
Recovery is feasible in the Sydenham River. Feasibility of recovering populations in the Thames River is unknown, in part because it is not known whether the species still occurs in the river.

Recovery approach:
A watershed-based recovery team for aquatic species at risk in the Sydenham River was formed in 1999 with representatives from the federal (EC-CWS and DFO) and provincial governments (Ontario Ministry of Natural Resources), the St. Clair Region Conservation Authority, the University of Guelph, three local stewardship councils (Middlesex, Lambton and Kent) and the Royal Ontario Museum. The recovery team has completed background reports on land use, water quality, stream channel structure and species at risk. This information has been integrated into a synthesis report which identifies threats and potential mitigation measures. The recovery team has held information sessions and workshops with stakeholders in the watershed. A recovery strategy was drafted in fall 2001 with the formation of recovery action groups in winter 2002. Recovery Action Groups consist of landowners and other stakeholder interests as well as members of the recovery team.

A Recovery Team for the Thames River was formed in Jan 2002 under the lead of the Upper Thames River Conservation Authority. While there is historical evidence of the Mudpuppy mussel in the Thames River, the river needs further assessment to determine if the population is extant (i.e., this species still occurs there) and to determine the feasibility of recovery at this site.

Responsible jurisdictions / representative:
DFO: R. Ratynski, T. Heiman
ON: S. Bowcott, A. Dextrase

8. Response Statement for Snuffbox

By Responsible Jurisdictions: Fisheries and Oceans Canada and Ontario

Species Information

Common Name
Snuffbox

Scientific Name
Epioblasma triquetra

Assessment Summary

Status
Endangered

Reason for Designation
Declines in extent of occurrence, area of occupancy and number of extant locations; total population extremely fragmented, all four extant sites in one river [Sydenham]; entire population could be eliminated by a single upstream catastrophic event. Habitats already exposed to high silt loading from agricultural practices and pollution from point and non-point sources.

Occurrence
Ontario

Status History
Designated Endangered in May 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

ON: The species has no legal designation in Ontario. The habitat may also receive protection under the provisions of the Provincial Policy Statement of the Planning Act.

DFO: Snuffbox is protected under the federal Fisheries Act, which prohibits the harmful alteration or destruction of habitat. The Ontario Fishery Regulations (made under the federal Fisheries Act) also require a license for commercial harvest although this probably is not an issue for this species.

Current or immediate recovery actions: The species is being considered in the Sydenham River Recovery Plan, a watershed-based recovery plan which is currently being developed. The Sydenham River Stewardship Initiative which was implemented in the year 2000 is supporting landowner efforts to improve riparian habitat and reduce nutrient and sediment inputs that negatively affect mussels in the river. An awareness initiative has been started to inform residents

of the watershed of the significance of the Sydenham River and its biodiversity. Monitoring of mussels in the river is ongoing.

Two additional Recovery Teams have been formed to draft watershed based Recovery Plans for the Thames and Ausable Rivers.

DFO has funded a survey of the Ausable River in 2002 to determine the occurrence and distribution of the Snuffbox.

Preliminary Recovery Information

Recovery feasibility: Recovery is feasible in the Sydenham River. Feasibility of recovering populations in the Thames and Ausable Rivers is yet to be determined by the respective recovery teams.

Recovery approach: A watershed-based recovery team for aquatic species at risk in the Sydenham River was formed in 1999 with representatives from the federal (EC-CWS and DFO) and provincial governments (Ontario Ministry of Natural Resources), the St. Clair Region Conservation Authority, the University of Guelph, three local stewardship councils (Middlesex, Lambton and Kent) and the Royal Ontario Museum. The recovery team has completed background reports on land use, water quality, stream channel structure and species at risk. This information has been integrated into a synthesis report which identifies threats and potential mitigation measures. The recovery team has held information sessions and workshops with stakeholders in the watershed. A recovery strategy was drafted in fall 2001 with the formation of recovery action groups in winter 2002. Recovery Action Groups consist of landowners and other stakeholder interests as well as members of the recovery team.

A Recovery Team for the Thames River was formed in Jan 2002 under the lead of the Upper Thames River Conservation Authority. Another Recovery Team has been formed under the joint lead of DFO and the Ausable Bayfield Conservation Authority in June 2002 to prepare a Recovery Plan for the Ausable River.

Populations once occurred in the Ausable and Thames rivers. Further assessment is needed to determine if the species is extant (i.e., still occurs) in either river and to determine the feasibility of species recovery in either or both of these rivers.

Responsible jurisdictions / representatives:
DFO: R. Ratynski, T. Heiman
ON: S. Bowcott, A. Dextrase

9. Response Statement for Poor Pocket Moss

By Responsible Jurisdiction: British Columbia

COSEWIC Species Information

Common Name: Poor pocket moss

Scientific Name: *Fissidens pauperculus*

Assessment Summary

COSEWIC Status: Endangered

Reason for Designation: This North American endemic is found in several Pacific states and at only one disjunct locality in southern British Columbia, where it occurs as a single small clump and a few adjacent tiny tufts of plants within a stream bed, and where it is at risk from human disturbance and stochastic events.

Occurrence: British Columbia

COSEWIC Status History: Designated Endangered in November 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

BC: The only known occurrence of Poor Pocket Moss in Canada is entirely within a municipal park. A District of North Vancouver municipal bylaw prohibits the collection of plants within municipal parks.

Current or Immediate Recovery Actions: The District of North Vancouver Parks has been alerted to the presence of this species in the park. Parks staff will be determining the exact location of the plant so that every effort can be taken to avoid its unintentional destruction.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing to nationally Threatened) may be feasible. Recovery feasibility should be reassessed once extensive inventories have been conducted to determine the likelihood of locating additional populations of this species in Canada.

Recovery approach: District of North Vancouver Parks staff will make every effort to ensure the persistence of this species within the park. Extensive inventories by qualified bryologists should be encouraged to determine whether other populations of Poor Pocket Moss exist.

Lead jurisdiction / representative: British Columbia will be the lead for this species.

Other participating jurisdictions / representatives:
District of North Vancouver Parks: Kevin Bell / Ken Bennett

Deadline for the production of the national recovery strategy: Within one year of listing.

10. Response Statement for the Barrens Willow

By Responsible Jurisdiction: Province of Newfoundland and Labrador

COSEWIC Species Information

Common Name: Barrens Willow

Scientific Name: *Salix jejuna*

Assessment Summary

COSEWIC Status: Endangered

Reason for Designation: Highly localized limestone barrens endemic occurring at only a few sites and subject to habitat loss and degradation from land use activities.

Occurrence: the Province of Newfoundland and Labrador

Status History: Designated Endangered in May 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply: A small part of the population is protected within the Watts Point Ecological Reserve. The majority of the known population, located at Cape Norman, is within an area being considered for ecological reserve status, otherwise the majority of the population is currently not under any formal or direct protection. The species is listed under the Province's Endangered Species Act as Endangered and is afforded protection from killing, harming and disturbance. As well, it is now subject to the province's recovery planning process and is eligible for habitat protection measures under the Act.

Current or immediate recovery actions: The Barrens Willow, along with two other threatened and endangered plants of the limestone barrens, is the subject of a major stewardship initiative. The main population is within an area being considered for ecological reserve status. Surveys have been carried out in 2002 to better delineate the size and distribution of the population. Current known locations of the Barrens Willow will be circulated to appropriate agencies so that steps can be taken to ensure the plants are not disturbed or destroyed.

Preliminary Recovery Information

Recovery feasibility: Recovery, that is down-listing to Threatened or Special Concern is feasible provided that: a) current populations are afforded appropriate protection (i.e., threats are reduced to acceptable levels or are removed); and/or b) expansion of the known range. As this species is restricted to a specific

habitat type (limestone barrens) and has been the recent subject of extensive surveys it appears unlikely that additional significant populations will be located outside its current known range. Overall numbers may increase through surveys however range may not change.

Recovery approach: Currently a single recovery team exists for two other limestone barrens species, Long 's Braya (COSEWIC Endangered) and Fernald's Braya (COSEWIC Threatened). The Barrens Willow occupies similar habitat and in some areas can be found adjacent or among Fernald's Braya. The threats the three species face are also similar. Consideration is being given to expanding the current Braya recovery team to include responsibility for the Barrens Willow as well thus making the team more ecosystem based. The current draft recovery plan for Braya would have to be modified to accommodate issues, recovery strategies and actions specific to the willow.

Lead jurisdiction/representative: The Province of Newfoundland and Labrador is the lead jurisdiction for this species and therefore will be responsible for ensuring the development of recovery strategies and action plans. It is anticipated that this will be facilitated through the current Braya recovery team which will expand its role to include the Barrens Willow. The Chief of the Endangered Species and Biodiversity Section of the Inland Fish and Wildlife Division, Department of Tourism, Culture and Recreation (Joe Brazil) and the botanist for the Section (Nathalie Djan-Chékar) will be the Province's primary contacts for recovery.

Deadline for the production of the national recovery strategy: July 2003. A draft recovery plan already exists for two braya species. This plan will be modified or an addendum included to incorporate the Barrens Willow.

11. Response Statement for Bear's-foot Sanicle

By Responsible Jurisdiction: British Columbia

COSEWIC Species Information

Common Name: Bear's-foot Sanicle

Scientific Name: *Sanicula arctopoides*

Assessment Summary

COSEWIC Status: Endangered

Reason for Designation: Highly restricted geographically with only five populations present within a major urban center and on adjacent small islands where habitat losses continue and major risks are posed by exotic plants.

Occurrence: British Columbia

COSEWIC Status History: Designated Endangered in May 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply: BC does not presently have automatic prohibitions that apply to COSEWIC-listed threatened or endangered plants. Plants within BC Parks, Ecological Reserves and Protected Areas are subject to provisions of the Protected Areas of British Columbia Act which require a valid and subsisting park use permit before they can be destroyed, damaged or disturbed. *Sanicula arctopoides* occurs in Trial Island and Oak Bay Islets Ecological Reserves. The other four sites where it is still known to occur are unprotected.

Current or immediate recovery actions: The Garry Oak Ecosystem Recovery Team (GOERT) takes an ecosystem-based approach to the conservation of species at risk in Garry Oak and associated ecosystems. The Bear's-foot Sanicle occurs within the purview of GOERT. A Recovery Action Group is currently being organized to cover red- and blue-listed species in GOERT ecosystems and will develop a Recovery Action Plan. BC Ministry of Water, Land and Air Protection is a member of GOERT.

GOERT was successful in providing, to managers of one unprotected site, advice which prevented impacts to Bear's-foot Sanicle during recent development activities.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing to nationally threatened) is feasible.

Recovery approach: GOERT has prepared a draft recovery strategy (GOERT 2001). The GOERT long-term recovery goals for ecosystems and species are:
1) to establish a network of Garry oak and associated ecosystem sites and landscape linkages that:

- is representative of the full range of ecosystem variation across the geographic range in Canada;
- sustains all the critical processes over the long term; and
- supports the full range of native biota over the long term.

2) to improve and secure the status of all species at risk in Garry oak and associated ecosystems, except those that are globally extinct, so that they no longer have at-risk status.

Partner land management agencies involved in GOERT include: the Canadian Wildlife Service; the BC Ministry of Water, Land and Air Protection; the BC Ministry of Forests; the Capital Regional District; the Land Conservancy; the Nature Conservancy of Canada; and Parks Canada Agency. Other partners in GOERT include a number of volunteer organizations including the Garry Oak Meadows Preservation Society. Important stakeholders such as landowners and First Nations groups are regularly consulted by the GOERT, and their involvement will be integral to the recovery of Bear's-foot Sanicle.

Research into the ecology of this species is urgently needed, in order to make well-informed decisions about habitat protection and stewardship. Interim actions will focus on protecting areas where Bear's-foot Sanicle is known to occur through stewardship, acquisition, and public education.

Lead jurisdiction: BC Ministry of Water, Land and Air Protection, Biodiversity Branch

Other jurisdictions:
PCA: Brian Reader will facilitate communications with the private managers of Harling Point National Historic Site.
EC-CWS has participatory responsibility due to occurrence on Department of National Defence (DND) land (Bentinck Island). EC-CWS also has a role in coordinating development of the recovery strategy (multi-jurisdictional species).

Deadline for the production of the recovery strategy: Recovery actions are being developed by GOERT.

12. Response Statement for Tall Bugbane

By Responsible Jurisdiction: British Columbia

COSEWIC Species Information

Common Name: Tall Bugbane

Scientific Name: *Cimicifuga elata*

Assessment Summary

COSEWIC Status: Endangered

Reason for Designation: A perennial herb of mature forests occurring naturally as very small populations at scattered sites throughout a single river valley and adjoining mountain slopes where logging continues to impact populations and to reduce its preferred forest habitats.

Occurrence: British Columbia

COSEWIC Status History: Designated Endangered in May 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply: BC does not presently have automatic prohibitions that apply to COSEWIC-listed threatened or endangered plants. There are no known populations of Tall Bugbane in Provincial Parks, Ecological Reserves or Protected areas.

Current or immediate recovery actions: Tall Bugbane is a candidate species under the Identified Wildlife Management Strategy of the Forest Practices Code of British Columbia Act. Designation as Identified Wildlife enables the establishment of Wildlife Habitat Areas to protect populations from forestry activities.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing to nationally threatened) is feasible.

Recovery approach: Ensure extant populations are provided long-term protection from habitat deterioration.

Lead jurisdiction/representative: BC Ministry of Water, Land and Air Protection, Biodiversity Branch

13. Response Statement for Tall Woolly-heads [Pacific population]

By Responsible Jurisdiction: British Columbia

COSEWIC Species Information

Common Name: Tall Woolly-heads [Pacific population]

Scientific Name: *Psilocarphus elatior*

Assessment Summary

COSEWIC Status: Endangered

Reason for Designation: Small annual species present in major urban area within Garry oak habitats with few small scattered populations subject to fluctuating numbers and at risk from habitat degradation and loss.

Occurrence: British Columbia

COSEWIC Status History: Designated Endangered in May 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply: BC does not presently have automatic prohibitions that apply to COSEWIC-listed threatened or endangered plants. There are no known populations of *Psilocarphus elatior* in Provincial Parks, Ecological Reserves or Protected areas.

Current or immediate recovery actions: Tall Woolly-heads occurs within the purview of the Garry Oak Ecosystem Recovery Team (GOERT), which takes a landscape-based approach to the conservation of species at risk. A Recovery Action Group is currently being organized to cover red- and blue-listed species in GOERT ecosystems and will develop a Recovery Action Plan.

BC Ministry of Water, Land and Air Protection, Biodiversity Branch is a member of GOERT.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing to nationally threatened) is feasible.

Recovery approach: The GOERT long-term recovery goals for ecosystems and species are:
1) to establish a network of Garry oak and associated ecosystem sites and landscape linkages that:

- is representative of the full range of ecosystem variation across the geographic range in Canada;
- sustains all the critical processes over the long term; and
- supports the full range of native biota over the long term.

2) to improve and secure the status of all species at risk in Garry oak and associated ecosystems, except those that are globally extinct, so that they no longer have at-risk status.

Partner land management agencies involved in GOERT include: the Canadian Wildlife Service; the Ministry of Environment, Lands and Parks; the Ministry of Forests; the Capital Regional District; the Land Conservancy; the Nature Conservancy of Canada; and Parks Canada Agency. Other partners in GOERT include a number of volunteer organizations including the Garry Oak Meadows Preservation Society. Important stakeholders such as landowners and First Nations groups are regularly consulted by GOERT, and their involvement will be integral to the recovery of Tall Woolly-heads.

Research into the ecology of this species is urgently needed, in order to make well-informed decisions about habitat protection and stewardship. Interim actions will focus on protecting areas where Tall Woolly-heads is known to occur through stewardship, acquisition, and public education.

Lead jurisdiction: BC Ministry of Water, Land and Air Protection, Biodiversity Branch

Deadline for the production of the recovery strategy: Recovery actions are being developed by the GOERT.

14. Response Statement for the Night Snake

By Responsible Jurisdiction: British Columbia

COSEWIC Species Information

Common Name: Night Snake

Scientific Name: *Hypsiglena torquata*

Assessment summary

COSEWIC Status: Endangered

Reason for Designation: Only 16 night snakes have been reported in Canada, all from a small region in south-central British Columbia that is under intense development pressure. Therefore, the species is rare and at risk from rapid depletion of habitat.

Occurrence: British Columbia

COSEWIC Status History: Designated Endangered in May 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

BC: The Night Snake is designated as wildlife under the BC Wildlife Act, and is protected from killing, wounding, trapping, hunting, taking, export, and import. It is Red-listed by the BC Conservation Data Centre, and hence is a candidate for legal designation as endangered or threatened under the Wildlife Act. Three suspected hibernacula occur within lands held for conservation.

EC-CWS: federal species at risk legislation is pending but not yet in place. Night Snakes occur on federal lands in the South Okanagan-Similkameen region, including a National Wildlife Area and two Indian Reserves.

Current or immediate recovery actions:

BC: The Night Snake is designated as Identified Wildlife under the Forest Practices Code of British Columbia Act. This designation enables the establishment of Wildlife Habitat Areas to protect critical habitats. One Wildlife Habitat Area for the Night Snake is currently in review, and a second is currently under consideration. The Forest Practices Code also provides the opportunity to protect grassland habitats for Identified Wildlife by setting objectives and measures for species within plans that direct range use.

The Night Snake occurs within the purview of the South Okanagan-Similkameen Conservation Program (SOSCP), which takes a landscape-based approach to the conservation of species at risk. Partners in the SOSCP currently protect three suspected hibernacula occurrences. A Recovery Action Group to cover the Night Snake is currently being organized by SOSCP, and a Recovery Plan will subsequently be developed.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing to nationally threatened) may be feasible. The biology of the Night Snake in Canada is largely unknown, and recovery feasibility should be re-assessed once population levels and habitat requirements are better understood.

Recovery approach: The SOSCP's strategies are to "expand community involvement, promote ecologically sustainable land-use, enhance stewardship on private and public land, and negotiate acquisition of key habitats." Partner agencies involved in land management in the region include: the Canadian Wildlife Service; the BC Ministry of Water, Land and Air Protection; the Nature Trust of BC; the Land Conservancy; the Nature Conservancy of Canada; and the Grassland Conservation Council of BC. Important stakeholders such as landowners and First Nations groups are regularly consulted by the SOSCP, and their involvement will be integral to the recovery of the Night Snake.

Research into the ecology of this species is urgently needed, in order to make well-informed decisions about habitat protection and stewardship. Interim actions will focus on protecting areas where Night Snakes are known to occur through Wildlife Habitat Areas, stewardship, acquisition, and public education.

Lead jurisdiction: BC Ministry of Water, Land and Air Protection, Biodiversity Branch

Other participating jurisdictions:
EC-CWS: Pacific and Yukon Region (as coordinator of recovery strategy development and as a participant in recovery planning and implementation)
First Nations Groups

Deadline for the production of the national recovery strategy: Within one year of listing. Recovery actions are being developed by the SOSCP.

15. Response Statement for the Allegheny Mountain Dusky Salamander

By Responsible Jurisdiction: Quebec

COSEWIC Species Information

Common Name: Allegheny Mountain Dusky Salamander

Scientific Name: *Desmognathus ochrophaeus*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: This species is limited to a small number of streams fed by sources in only two sites. It can be threatened by the loss of habitat and by hydrological changes affecting the streams.

Occurrence: Quebec

Status History: Designated Special Concern in April 1998. Status re-examined and uplisted to Threatened in November 2001. The most recent assessment was based on an existing status report with an addendum.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada and automatic prohibitions that will apply: The Mountain Dusky Salamander is protected under the Act Respecting the Conservation and Development of Wildlife; prohibitions include: killing, capturing or keeping these salamanders in captivity.

In addition, the Mountain Dusky Salamander is listed among the species likely to be designated as threatened or vulnerable, a list which was established under the Act Respecting Threatened or Vulnerable Species. Habitat protection measures apply during forest management activities (Programme Verglas). In addition, environmental impact assessments, for any project subject to the Environment Quality Act, must take this species into account where the species occurs. The species is classified as S2 in Québec.

A report on the Mountain Dusky Salamander's situation in Quebec is being prepared. It will be submitted to the Comité aviseur sur les espèces fauniques menacées ou vulnérables, for provincial designation purposes under the Act Respecting Threatened or Vulnerable Species.

Current or immediate recovery actions: A recovery team was formed in October 2001, in order to draft an action plan with respect to stream salamanders. This group of salamanders includes the Mountain Dusky Salamander, the Spring Salamander and the Northern Dusky Salamander.

Directed inventories are in progress in order to identify the range of the species. In addition, inventory data has been accumulated as a result of research conducted by volunteers, within the context of the Atlas of Amphibians and Reptiles of Quebec program. The data obtained was forwarded to the Centre de données sur le patrimoine naturel du Québec, to be used during environmental impact assessments for various development projects. In addition, the protection measures taken, within the framework of the Programme Verglas, continue to apply.

Nature Conservancy of Canada acquired 121 ha of peat bogs, which are adjacent to an environment where the Mountain Dusky Salamander occurs. Protecting these peat bogs is very important, as they feed the sources in which the salamanders live. The Fondation de la faune du Québec has contributed to these acquisitions and the Province of Quebec Society for the Protection of Birds manages the acquired sites. In addition, efforts have begun in order to increase landowner awareness in the places where the salamanders are located.

Preliminary Recovery Information

Recovery Feasibility: According to recovery team members, it is feasible to maintain existing populations and their habitats.

Recovery Approach: Inventories will continue, in order to locate existing populations with a greater degree of accuracy and in order to characterize their habitats. The habitats will be protected mainly through stewardship and by raising the landowner awareness. In some cases, land acquisition may be necessary.

Lead jurisdiction/ representative: QC (La Société de la faune et des parcs): Jacques Jutras

Other responsible jurisdictions representatives: Nature Conservancy of Canada: Joël Bonin, Recovery Team Chair

Deadline for production of the recovery strategy: The recovery strategy and action plan will be produced by November 2003. The action plan will be implemented once it has been completed, although some actions have already been initiated.

16. Response Statement for Great Basin Spadefoot

By Responsible Jurisdictions: British Columbia and Environment Canada-Canadian Wildlife Service (Pacific and Yukon Region)

COSEWIC Species Information

Common Name: Great Basin Spadefoot

Scientific Name: *Spea intermontana*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: This species is subject to continuing loss of habitat for both the aquatic larvae and the terrestrial adults due to conversion for agriculture and viticulture, as well as urban expansion.

Occurrence: British Columbia

COSEWIC Status History: Designated Special Concern in April 1998. Status re-examined and uplisted to Threatened in November 2001. Assessment based on new quantitative criteria applied to information from an existing status report.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

BC: The Great Basin Spadefoot Toad is designated as wildlife under the BC Wildlife Act, and is protected from killing, wounding, trapping, hunting, taking, export, and import. It is Red-listed by the BC Conservation Data Centre, and hence is a candidate for legal designation as endangered or threatened under the Wildlife Act. Some breeding sites are in protected areas and other lands managed for conservation purposes, such as properties managed by environmental nongovernment agencies.

EC-CWS: federal species at risk legislation is pending but not yet in place. The Great Basin Spadefoot occurs on federal lands in the South Okanagan-Similkameen region, including a National Wildlife Area, a federal research site and Indian Reserves.

Current or Immediate Recovery Actions: The Great Basin Spadefoot occurs within the purview of the South Okanagan-Similkameen Conservation Program (SOSCP), which takes a landscape-based approach to the conservation of species at risk. Partners in the SOSCP currently protect three suspected hibernacula occurrences. A Recovery Action Group to cover the Great Basin Spadefoot will be organized by SOSCP, and a Recovery Strategy and Action

Plan(s) will subsequently be developed. Environment Canada-Canadian Wildlife Service and the Province of British Columbia are active partners in SOSCP.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing to nationally Special Concern) may be feasible. The biology of the Great Basin Spadefoot is largely unknown. Recovery feasibility should be re-assessed once population levels and habitat requirements are better understood.

Recovery approach: The SOSCP's strategies are to "expand community involvement, promote ecologically sustainable land-use, enhance stewardship on private and public land, and negotiate acquisition of key habitats." Partner agencies involved in land management in the region include: Environment Canada-Canadian Wildlife Service; the Ministry of Water, Land and Air Protection; the Nature Trust of BC; the Land Conservancy; the Nature Conservancy of Canada; and the Grassland Conservation Council of BC. First Nations and important stakeholders such as landowners are regularly consulted by the SOSCP, and their involvement will be integral to the recovery of the Great Basin Spadefoot.

Interim actions will focus on areas where the Great Basin Spadefoot is known to occur through stewardship, acquisition and public education. Information to managers and the general public needs to be disseminated regarding the biodiversity implications to the stocking of "fishless" systems, as well as the management and protection of ephemeral water supplies.

Lead jurisdictions: EC-CWS and BC will be co-leads for this species.

Other participating jurisdictions:
SOCP partners
First Nations Groups

Deadline for the production of the national recovery strategy: Within one year of listing (i.e., by Nov 2002). Recovery actions are being developed by the SOSCP.

17. Response Statement for Least Bittern

By Responsible Jurisdictions: Environment Canada-Canadian Wildlife Service (lead - Ontario Region, with the assistance of Quebec Region and Prairie and Northern Region), Manitoba, Ontario, Quebec, New Brunswick and Parks Canada Agency

COSEWIC Species Information

Common Name: Least Bittern

Scientific name: *Ixobrychus exilis*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: A very small and declining population that depends on high quality marsh habitats that are being lost and degraded across the species' range.

Occurrence: Manitoba, Ontario, Quebec, New Brunswick

COSEWIC Status History: Designated Special Concern in April 1988. Status re-examined and confirmed in April 1999. Status re-examined and uplisted to Threatened in November 2001. Assessment based on new quantitative criteria applied to information from an existing status report.

Immediate Conservation and Protection Measures

Proposed or current legal designations in Canada and automatic prohibitions that will apply:

EC-CWS: The Least Bittern is protected in Canada as a "migratory non-game bird" under the Migratory Birds Convention Act (1994). This provides protection against willful damage to the birds, their nests and eggs. Many of the large marshes where it occurs are federal Crown land (Environment Canada 2001) and development and use of marshes on such land is governed by the federal wetland policy which endeavours to ensure no net loss of function.

NB: Programs to protect wetlands are in place and threats to habitat caused by development are regulated by provincial and municipal planning laws and policies and associated approval processes.

QC: The Least Bittern appears on the list of candidate species for assessment as threatened or vulnerable under provincial legislation. The report on the status of the Least Bittern will be evaluated by the committee advising on the status of threatened or vulnerable wildlife in Quebec in 2003, with a view to eventual provincial designation. Presently, all development projects subjected to impact

studies under the law on the quality of the environment have to take into account the presence of this species.

ON: The Least Bittern is not protected under Ontario's Fish and Wildlife Conservation Act as it receives federal protection under the Migratory Birds Convention Act (1994). As a threatened species, it is not eligible for protection under Ontario's Endangered Species Act, which currently protects only those species which have been identified as "endangered" in provincial and/or national designation processes. As specified in the Planning Act, planning authorities must "have regard to" a provision of the provincial policy statement that the "development and site alteration will not be permitted in . . . significant portions of the habitat of endangered and threatened species." Habitat of Least Bittern is protected in provincial parks, provincial wildlife areas, conservation areas, and large interior marshes that are mostly or entirely publicly owned.

MB: The Least Bittern is not protected under Manitoba law. Programs to protect wetlands are in place and threats to habitat caused by development are controlled by provincial and municipal planning laws and policies and associated approval processes. The Least Bittern is a candidate species for consideration by the Province's Endangered Species Advisory Committee.

PCA: The Canada National Parks Act and Regulations provide for the protection of wildlife in national parks. Penalties are imposed for killing, injuring, seizing, disturbing, capturing, trapping, trafficking and possessing individuals or parts of wildlife in national parks.

Current or immediate Recovery Actions:

EC-CWS: Support for protection and enhancement of Least Bittern habitat will be sought through the federal government's Habitat Stewardship Program.

NB: A lack of information on population status and distribution precludes targeted recovery actions at this time. Habitat protection for Least Bittern is currently addressed through existing, broader scope, wetlands conservation programs and processes.

QC: Initiatives on the protection of wetland habitat will continue and cooperation with partners in such protection will be encouraged. Quebec will participate in monitoring projects for species at risk in the Province.

ON: Habitat protection for Least Bittern is addressed through existing wetlands conservation programs and development review processes.

MB: Recovery actions in Manitoba are limited by a lack of information on distribution or abundance. Sampling techniques and monitoring for rare marsh birds, including the Least Bittern, will be improved. The involvement of Ducks

Unlimited Canada and organizations such as the Manitoba Naturalists Society and the Manitoba Avian Research Committee in monitoring and management will be explored.

Preliminary Recovery Information

Recovery feasibility: Maintaining, if not recovering this species, appears feasible. Due to the fact that it is a secretive bird, determining the size of the population and the breeding population has been a challenge and there are conflicting views as to how the population is performing (James 1999). High waters levels along the Great Lakes, which have now decreased significantly and are projected to continue to decline, were a negative factor affecting Least Bitterns in these areas (James 1999). Also, loss of wetlands, while traditionally a problem in all jurisdictions, is now recognized as a problem and programs are in place to try and stop or reverse these losses.

Recovery approach: Consideration is being given to the establishment of a multi-species recovery team for marsh birds that are endangered, threatened or of special concern, with a recovery action group in each province.
In the short term, better information is needed on population size, distribution, productivity and survival. Protection and enhancement of suitable habitat is also needed.

Lead jurisdiction: EC-CWS (Ontario Region) will lead in coordinating the development and implementation of a national recovery strategy.

Responsible jurisdictions/representatives:
EC-CWS (Ontario Region): Robert Wenting; **EC-CWS (Quebec Region):** François Shaffer; **NB:** Kevin Connor; **QC:** Michel Lepage; **ON:** Steve Bowcott; **MB:** Ken DeSmet; **PCA:** Gilles Seutin

References:
Environment Canada. 2001. Least Bittern. Species at Risk Web site. http://www.speciesatrisk.gc.ca/species/English/SearchDetail.cfm?SpeciesID=51

James, R. D. 1999. Update COSEWIC Status Report on Least Bittern (*Ixobrychus exilis*). Committee on the Status of Endangered Wildlife in Canada. 8+iiipp.

Sandilands, A.P. and C.A. Campbell. 1987. Status Report on the Least Bittern *Ixobrychus exilis* in Canada. Committee on the Status of Endangered Wildlife in Canada. 34pp.

18. Response Statement for Ross's Gull

By Responsible Jurisdictions: Environment Canada-Canadian Wildlife Service (Prairie and Northern Region) and Manitoba, in consultation with Nunavut and Nunavut Wildlife Management Board

COSEWIC Species Information

Common Name: Ross's Gull

Scientific Name: *Rhodostethia rosea*

Assessment summary

COSEWIC Status: Threatened

Reason for designation: Very few individuals occur in Canada where they breed in very few places (two known sites). If they were to abandon these sites, recolonization would probably take a long time.

Occurrence: Northwest Territories, Nunavut, Manitoba

COSEWIC Status history: Designated Special Concern in April 1981. Status re-examined and confirmed in April 1996. Status re-examined and uplisted to Threatened in November 2001. The most recent assessment was based on an existing status report.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

EC-CWS: The Ross's gull is protected under the Migratory Birds Convention Act (1994) and Regulations made pursuant to the Act. Birds, eggs and nests may not be disturbed, destroyed, taken or possessed except under authority of a permit. Federal species at risk legislation is pending but not yet in place.

MB: The Ross's gull is a candidate species for review by the Endangered Species Advisory Committee. If listed under Manitoba's Endangered Species Act as Endangered or Threatened, prohibitions include: possession; killing, injuring, disturbing or interfering with species at risk; destroying, disturbing or interfering with species-at-risk habitat; obstructing or removing, destroying, damaging a natural resource upon which a species at risk depends on.

NU: None. Consultation with communities around southern Baffin indicated that this species does not breed there, and hence most birds observed there were probably rare migrants or individuals blown inshore by storms.

Current or Immediate Recovery Actions

EC-CWS: Surveys will be conducted.

MB: Known and potential nesting sites near Churchill are protected as part of the Churchill Special Conservation Area specifically to conserve and protect the

Ross's Gull. Manitoba Conservation recently (December 2001) expanded this Special Conservation Area, which now includes recently discovered nesting sites on islands in the Churchill River. The expansion occurred with the support of local residents and tour operators.
NU: None.

Preliminary Recovery Information

Recovery feasibility:

MB: Only one breeding area, in the Hudson Bay lowlands near Churchill, is known from Manitoba. Numbers of nesting pairs near Churchill ranged from 1-5 from 1980-1994. Although some are seen in the area each year, recent nesting evidence is lacking. Numbers of Ross' Gulls elsewhere in the Canadian Arctic have always been low. The harsh environment and high predation by arctic foxes and other gulls on eggs and chicks keeps the population low. Because few individuals occur in Canada, recolonization of abandoned sites would be expected to be slow.

NU: Ross's gull is an Old World species originally described from two specimens shot in 1823 by Sir James Clark Ross on the east coast of the Melville Peninsula. Occasionally observed in the Canadian arctic over the past 30 years including Cape Dorset, Frobisher Bay, and Cumberland Sound, but not at Kimmirut. Birds observed around southern Baffin Island are believed to be rare migrants or individuals blown inshore by storms. Recovery (down-listing to nationally Special Concern) is uncertain as further population data are required.

Recovery approach: Known nesting sites are protected in Manitoba. In Nunavut, recovery approach is uncertain given limited available information on breeding distribution, nest site locations, and long-term fidelity to nest sites.

Lead jurisdiction / representative: EC-CWS (Prairie and Northern Region): Grant Gilchrist (Ottawa), Mark Mallory (Iqaluit)

Other responsible jurisdictions / representatives:
MB: Ken De Smet; **NU:** Siu-Ling Han

There is no evidence that Ross's Gull currently breeds in the Northwest Territories. Therefore, the Government of the Northwest Territories and the Wildlife Management Advisory Council (Inuvialuit) are not listed as a responsible authority. The Nunavut Wildlife Management Board has been consulted but no comments have been received to date.

19. Response Statement for Lake Chubsucker

By Responsible Jurisdictions: Fisheries and Oceans Canada, Ontario

COSEWIC Species Information

Common Name: Lake Chubsucker

Scientific name: *Erimyzon sucetta*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: The lake chubsucker exists (in Canada) only in south-western Ontario where it has been found at seven locations, and has not been found at three of these since 1983. Never abundant, the species is in decline throughout its range as a result of siltation and drainage of wetlands.

Occurrence: Ontario

COSEWIC Status History: Designated Special Concern in April 1994. Status re-examined and up-listed to Threatened in November 2001. Assessment based on new quantitative criteria applied to information from an existing status report with an addendum.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

Canada: The Canada National Parks Act protects habitat in Point Pelee National Park. The Fisheries Act prohibits the harmful alteration, disruption, or destruction of fish habitat.

Ontario: The Ontario Fisheries Regulations could be used to regulate commercial and sport harvest, although exploitation is not thought to be an issue for this species. The Provincial Parks Act protects habitat in Long Point Provincial Park, Pinery Provincial Park and Rondeau Provincial Park. The Ontario Wilderness Areas Act could be used to protect the habitat in designated areas within Pinery and Rondeau Provincial Parks through restrictions on land use. The Ontario Lakes and Rivers Improvements Act controls the impoundment or diversion of watercourses which could lead to siltation and destruction of habitat.

Current or Immediate Recovery Actions:

DFO: Research projects are being conducted at Point Pelee National Park, Long Point Provincial Park, Rondeau Provincial Park and the Pinery Provincial Park as well as the Sydenham River and Ausable River watersheds in the summer and

fall of 2002. The goal of these projects is to identify the current distribution of this and other fish species listed as Threatened or Special Concern.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing by COSEWIC to the status of special concern) may be feasible if it is determined that the species is more widely distributed in Ontario. However, in 2002, it was not collected by extensive sampling of Point Pelee National Park, moderate sampling in Rondeau Provincial Park and limited sampling in Long Point Provincial Park. The feasibility of recovering and protecting populations in Lake Erie and Lake St. Clair has not been assessed.

Recovery approach: The species is currently being considered in the Ausable River Recovery Plan. This is a watershed based recovery plan, which is being prepared by a Recovery Team composed of members from the Ausable Bayfield Conservation Authority, DFO, EC, OMNR, and the University of Windsor

Research is needed to identify limiting factors, critical habitat and minimum viable population size. Ensure the extant population is provided long-term protection from additional habitat deterioration and encourage development of additional habitat appropriate for the species.

Recovery approaches have yet to be developed for Lake Erie and Lake St. Clair populations. Monitoring is ongoing to assess the status of these populations.

Lead jurisdictions/representatives:

DFO: R. Ratynski, T. Heiman
ON: S. Bowcott; Al Dextrase

20. Response Statement for Northern Wolffish

By Responsible Jurisdiction: Fisheries and Oceans Canada

COSEWIC Species Information

Common Name: Northern Wolffish

Scientific Name: *Anarhichas denticulatus*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: Numbers of this large, slow-growing, long-lived, solitary, nest-building fish have declined over 95% in three generations, and the number of locations where the fish is found has decreased. Threats include mortality as by-catch and habitat alteration by bottom trawling. Dispersal is limited.

Occurrence: Arctic Ocean, Atlantic Ocean

COSEWIC Status History: Designated Threatened May 2001

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply: Although there are no specific protection measures for this species in place, incidental mortality from fisheries has been and is currently being monitored through a fisheries observer program. Research into the ecology of this species in being conducted in order to make well-informed decisions related to sustainability issues and habitat requirements. In addition, restrictions on fisheries for bottom living species, under the Fisheries Act and related regulations which may be initiated with the pending Federal Species at Risk legislation may enhance conservation measures.

Other Actions Already Taken: DFO assesses the stock status every three years and produces stock assessment reports (available at www.dfo-mpo.gc.ca/csas). It also regularly monitors commercial fishery catches using observers on fishing vessels and conducts annual trawl surveys which provide abundance, distribution and biological information on this species.

A Wolffish Recovery Team has been formed to guide the implementation of a Wolffish Recovery Plan. The team consists of members from relevant jurisdictions and stakeholders. The recovery team held an inaugural Species at Risk Recovery Planning Meeting for Wolffish on 18-19 February 2002 to update current knowledge and to define goals, objectives and strategies for the recovery process.

Preliminary Recovery Information:

Recovery Feasibility: Unknown at this time, although human impacts can be limited.

Recovery Approach: Develop a recovery strategy in concert with stakeholders and provincial government. Continue to monitor distribution and abundance, using trained observers in commercial operations, trawl surveys, and regular assessment of the stock. Continue with area-time closures as needed to reduce wolffish mortality.

Preparation of a recovery strategy is programmed for 2002. The strategy will also include the related spotted wolffish (COSEWIC Threatened, 2001) and may include the Atlantic wolffish (COSEWIC Special Concern, 2000). A research plan is being formulated. Information on weights and numbers, lengths by sex, mtDNA analysis, morphometrics, otoliths for aging, information on maturity plus related spatial data will provide the knowledge base needed to define trends in abundance, distribution, stock (sub-population) structure and life history. Commercial trawl fisheries data will be used to estimate fishing mortality by sex, size and age to permit the estimation of the impact of fisheries by-catch on the populations.

Lead jurisdiction and representatives:
DFO is the lead jurisdiction and will initiate the implementation of the regional recovery strategy.
DFO (Newfoundland and Labrador Region): D. Kulka, J. Tillman, C. Hood
DFO (Headquarters, Ottawa): H. Powles

21. Response Statement for Rosyface Shiner [Manitoba population]

By Responsible Jurisdictions: Fisheries and Oceans Canada and Manitoba

COSEWIC Species Information

Common Name: Rosyface Shiner [Manitoba population]

Scientific Name: *Notropis rubellus*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: The rosyface shiner has a disjunct Canadian distribution. The Manitoba population is discrete from neighbouring populations in Ontario and southwestern Quebec as well as from those in Minnesota and North Dakota. The Manitoba population is small and has a very limited distribution and the population is limited by water temperature and quality.

Occurrence: Manitoba

COSEWIC Status History: Designated Special Concern in April 1994. Status re-examined and uplisted to Threatened in November 2001. Assessment based on new quantitative criteria applied to information from an existing status report.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

MB: Manitoba has no automatic prohibitions that apply to fishes listed by COSEWIC as threatened.

DFO: As a food source for sport fish (e.g. walleye), rosyface shiner is protected under the federal Fisheries Act by provisions that prohibit harmful alteration, disruption or destruction of fish habitat.

Current or Immediate Recovery Actions:

MB: The Manitoba Conservation Data Centre has assigned the rosyface shiner a provincial rank of S2 which by definition means "Rare throughout its range or in the province (6 to 20 occurrences). May be vulnerable to extirpation." The ranks are used to determine protection and data collection priorities.

Manitoba's Endangered Species Advisory Committee will be requested to review and recommend a conservation status of the rosyface shiner to the Manitoba Minister of Conservation. This may result in the rosyface shiner being listed under the Manitoba Endangered Species Act. If it is listed under the Manitoba

Endangered Species Act automatic prohibitions on interference with the organism, habitat, or resources will apply.

DFO: A biological sampling project, funded by the Department of Fisheries and Oceans, will be conducted in the Whitemouth River and nearby drainages in 2002. The goals of this project are to identify the precise distribution of this population and obtain data leading to the identification of critical habitat, population structure and trophic interactions.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing to status of special concern) may be feasible if it is determined that the species is more widely distributed in Manitoba.

Recovery may also be feasible if habitat within the Whitemouth River is protected through regulation under a Manitoba Act such as the Parks Act or Ecological Reserves Act. A small section of the Whitemouth River in the headwaters has already been designated as Ecological Reserve for the purpose of protecting river-bottom forest. Since the headwaters of the Whitemouth River are largely within Provincial Forest, designation as a protected area may be more readily achieved than in the downstream, privately owned, reaches.

Recovery approach: Ensure the extant population is provided long-term protection from habitat deterioration.

The Recovery Team will be co-led by Manitoba Conservation and the Department of Fisheries and Oceans. The Recovery Strategy will be structured to satisfy both national and provincial requirements. The Recovery Strategy and Action Plan(s) will be closely linked to habitat stewardship initiatives in the Whitemouth River watershed.

A habitat stewardship program, including an educational component and financial assistance to landowners to prevent further degradation of riparian habitat, would reduce stream bank erosion and therefore improve stream habitat.

Assessment of current status, distribution and biology and identification of critical habitat are required prior to discussion of management issues for this population of rosyface shiners. This activity will occur during 2002.

The Recovery Strategy and Action Plan(s) will be developed through a Recovery Team with representation from the relevant jurisdictions, affected aboriginal groups, significant stakeholders and others as appropriate.

Lead jurisdictions/representatives:
MB: Shelley Matkowski; James Duncan
DFO: Ray Ratynski; Fred Hnytka

22. Response Statement for Spotted Wolffish

By Responsible Jurisdiction: Fisheries and Oceans Canada

COSEWIC Species Information

Common Name: Spotted Wolffish

Scientific Name: *Anarhichas minor*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: Numbers of this large, slow-growing, long-lived, solitary, nest-building fish have declined over 90% in three generations, and the number of locations where the fish is found has decreased. Threats include mortality as by-catch and habitat alteration by bottom trawling. Dispersal is limited.

Occurrence: Arctic Ocean, Atlantic Ocean

COSEWIC Status History: Designated Threatened May 2001

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply: Although there are no specific protection measures for this species in place, incidental mortality from fisheries has been and is currently being monitored through a fisheries observer program. Research into the ecology of this species in being conducted in order to make well-informed decisions related to sustainability issues and habitat requirements. In addition, restrictions on fisheries for bottom living species, under the Fisheries Act and related regulations which may be initiated with the pending Federal Species at Risk legislation may enhance conservation measures.

Other Actions Already Taken: DFO assesses the stock status every three years and produces stock assessment reports (available at www.dfo-mpo.gc.ca/csas). It also regularly monitors commercial fishery catches using observers on fishing vessels and conducts annual trawl surveys which provide abundance, distribution and biological information on this species.

A Wolffish Recovery Team has been formed to guide the implementation of a Wolffish Recovery Plan. The team consists of members from relevant jurisdictions and stakeholders. The recovery team met for an inaugural Species at Risk Recovery Planning Meeting for Wolffish on 18-19 February, 2002 to update current knowledge and to define goals, objectives and strategies for the recovery process.

Preliminary Recovery Information:

Recovery Feasibility: Unknown at this time, although human impacts can be limited.

Recovery Approach: Develop a recovery strategy in concert with stakeholders and provincial government. Continue to monitor distribution and abundance, using trained observers in commercial operations, trawl surveys, and regular assessment of the stock. Continue with area-time closures as needed to reduce wolffish mortality.

Preparation of a recovery strategy is programmed for the year 2002. The strategy will also include the related Northern wolffish (COSEWIC Threatened, 2001) and may include the Atlantic wolffish (COSEWIC Special Concern, 2000). A research plan is being formulated. Information on weights and numbers, lengths by sex, mtDNA analysis, morphometrics, otoliths for aging, information on maturity plus related spatial data will provide the knowledge base needed to define trends in abundance, distribution, stock (sub-population) structure and life history. Commercial trawl fisheries data will be used to estimate fishing mortality by sex, size and age to permit the estimation of the impact of fisheries by-catch on the populations.

Lead jurisdiction and representatives:
DFO is the lead jurisdiction and will initiate the implementation of the regional recovery strategy.
DFO (Newfoundland and Labrador Region): D. Kulka, J. Tillman, C. Hood
DFO (Headquarters, Ottawa): H. Powles

23. Response Statement for Western Silvery Minnow

By Responsible Jurisdictions: Fisheries and Oceans Canada and Alberta

COSEWIC Species Information

Common Name: Western Silvery Minnow

Scientific Name: *Hybognathus argyritis*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: The western silvery minnow is known in Canada from the Milk River and South Saskatchewan River in Alberta. The Milk River flows through short-grass prairie which is subject to continuous erosion leading to increased siltation.

Occurrence: Alberta

COSEWIC Status History: Designated Special Concern in April 1997. Status re-examined and uplisted to Threatened in November 2001. Assessment based on new quantitative criteria applied to information from an existing status report with an addendum.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply

AB: Fish can be prescribed as endangered species under Alberta's Wildlife Act, however, the western silvery minnow is not currently listed. Western silvery minnow is classified as a bait fish under the Fisheries (Alberta) Act and the Fisheries (Ministerial) Regulation. A sportfishing licence is required to collect bait fish for personal use. A commercial bait fishing licence is required for the commercial collection of bait fish. Over-consumption by personal or commercial use is probably not an issue for this species.

DFO: As a food source for sport fish (e.g. sauger), western silvery minnow is protected under the federal Fisheries Act by provisions that prohibit harmful alteration, disruption or destruction of fish habitat.

Western silvery minnow is also considered a bait fish in the Alberta Fishery Regulations, which are registered under the Fisheries Act.

Other Actions Already Taken: The Alberta Fish and Wildlife Division has co-ordinated a 2 year study (2000, 2001) on three fish species of concern which occur in the Milk and St. Mary rivers, including western silvery minnow. The primary objective of the inventory was to obtain data on the distribution, relative abundance and habitat preferences of the focal species.

DFO funded a survey to augment the above endeavors. The lower Milk River was surveyed in late March 2002 to assess the extent and suitability of potential overwintering habitat for fish species.

A provincial detailed status report on western silvery minnow has been commissioned. Upon completion of the report, the status of the western silvery minnow will be formally assessed in Alberta, and the Alberta Endangered Species Conservation Committee will make recommendations to the responsible Minister on the legal designation and conservation priorities for this species.

Future Additional Actions That Will Be Undertaken: The Fish and Wildlife Division and Alberta Conservation Association will receive funding from the Habitat Stewardship Program (HSP) for 2002-2003. The project will focus on inventory and habitat conservation for species at risk within the Milk River drainage basin, including western silvery minnow.

Application to amend the Fishery (Ministerial) Regulation of the Fisheries (Alberta) Act, and the Alberta Fishery Regulations of the Fisheries Act, to exclude western silvery minnow from the bait fish list will be submitted for consideration in 2002.

Current Or Immediate Recovery Actions

Recovery feasibility: Recovery (down-listing to nationally of special concern) is biologically possible. Recovery feasibility from economic, social and political standpoints must be assessed with other involved jurisdictions and stakeholders.

Recovery approach: Ensure extant populations are provided long-term protection from habitat deterioration.

The Recovery Team will be co-led by Department of Fisheries and Oceans and Alberta, and the Recovery Strategy will be structured to satisfy both national and provincial requirements. The Recovery Strategy and associated Action Plan(s) will be developed specifically for western silvery minnow, but will include components that will be beneficial to several other fish species of management concern in the Milk River (shorthead sculpin, stonecat, brassy minnow, sauger). The Recovery Strategy and Action Plan(s) will be closely linked to related HSP and landscape level initiatives involving the Milk River drainage basin.

Recent drought conditions combined with irrigation and other domestic and industrial water draws have resulted in extremely low flow rates that may compromise overwinter survival. Flow rates in the Alberta portion of the Milk River are directly related to the water regulation strategy implemented in Montana for irrigation purposes. As low flow rates are a potential threat to survival of the western silvery minnow in the Milk River, co-operation with state

and federal US agencies responsible for water management is essential for the recovery process.

The Recovery Strategy and Action Plan(s) will be developed through a Recovery Team with representation from the relevant jurisdictions, affected aboriginal groups, significant stakeholders and others as appropriate.

Responsible jurisdictions/representatives:
AB (co-lead): Sue Cotterill, Steve Brechtel
DFO (co-lead): Ray Ratynski, Fred Hnytka

Other potential participating agencies
US state and/or federal agencies responsible for water and fish, Alberta Environment

24. Response Statement for Killer-whale (Northeast Pacific northern resident population) see Response statement No. 6, page 14

25. Response Statement for Killer-whale (Northeast Pacific transient population) see Response statement No. 6, page 14

26. Response Statement for Haller's Apple Moss

By Responsible Jurisdictions: Parks Canada Agency, Alberta and British Columbia

COSEWIC Species Information

Common Name: Haller's Apple Moss

Scientific Name: *Bartramia halleriana*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: A globally widespread species known in North America from only four sites in Canada, three of which have been verified recently with the fourth being a historic collection lacking precise locality information.

Occurrence: British Columbia, Alberta

COSEWIC Status History: Designated Threatened in November 2001

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

PCA: The Canada National Parks Act and Regulations provide for the protection of flora in national parks, including prohibiting removing, damaging or destroying plants.

AB: There are no known populations of *Bartramia halleriana* in Alberta outside of Jasper National Park.

BC: This species currently has no protection under the Wildlife Act.

Current or immediate recovery actions: Evaluate current populations in Alberta (Jasper National Park West Gate) and British Columbia (Fraser River, Avola) regarding threat prevention or mitigation. Contact the owner of the Fraser River site to inform of the presence of this species and offer assistance with appropriate management. Confirm the precise location of the Avola population and the land ownership.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing to Special Concern) is feasible if current populations are afforded appropriate protection and additional populations are located.

Recovery approach:

1. Ensure that extant populations are provided long-term protection from habitat deterioration, especially human disturbance.
2. Survey areas of similar habitat for possible additional populations.
3. Other appropriate conservation measures will be identified by the Recovery Team.

Lead jurisdiction / representative: PCA: Peter L. Achuff, National Office, Ecological Integrity Branch

Other responsible jurisdictions/representatives:

AB: The Fish and Wildlife Division of the Department of Sustainable Resource Development will be kept informed, but will not be an active participant in recovery activities unless additional populations are discovered in Alberta outside of a national park.

BC: Member of the Biodiversity Branch, Ministry of Water, Land and Air Protection.

Deadline for production of the national recovery strategy: March 2004

27. Response Statement for Buffalograss

By Responsible Jurisdictions: coordinated by Environment Canada-Canadian Wildlife Service (Prairie and Northern Region); Saskatchewan and Manitoba

COSEWIC Species Information

Common Name: Buffalograss

Scientific Name: *Buchloë dactyloides*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: A perennial clonal grass with male and female unisexual plants, with very restricted occurrences in two small areas of Saskatchewan and Manitoba and disjunction from the core range of the species to the south.

Occurrence: Saskatchewan and Manitoba

COSEWIC Status History: Designated Special Concern in April 1998. Status re-examined and uplisted to Threatened in November 2001. The most recent assessment was based on an existing status report.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

MB: Currently a candidate species for listing under Manitoba's Endangered Species Act. If listed as Endangered or Threatened, prohibitions include: possession; killing, injuring, disturbing or interfering with species at risk; destroying, disturbing or interfering with species-at-risk habitat; obstructing or removing, destroying, damaging a natural resource upon which a species at risk depends on.

SK: Status has been reviewed and recommended for listing as threatened under Saskatchewan's Wildlife Act. If listed as threatened, prohibitions include: possession, disturbing, harvesting or interfering with species at risk; destroying, cultivating, digging up or excavating the immediate area or patch of species-at-risk habitat. It is found within the Buffalograss Ecological Reserve and thus this species falls under the Ecological Reserves Act in that location.

Current or immediate recovery actions:

MB: Surveys of known and suspected buffalograss locations in summer 2001 resulted in 3 newly documented sites, consisting of populations not counted, probably low hundreds plants in 34.26 hectares. The range of a previously

known occurrence was increased from 107.83 ha to 198.29 ha. Additional surveys are planned for summer 2002. Information about known buffalograss sites has been provided to a conservation agency to pursue conservation agreements with landowners. Under Manitoba's Conservation Agreements Act, landowners and conservation agencies may enter into agreements for the protection and enhancement of natural ecosystems, fish and wildlife habitat, and plant or animal species, while enabling the continued use and development of the land by the landowner.

SK: Determining current status and response to management in Buffalo Grass Ecological Reserve. Will adjust management practice if necessary. This species has limited populations at the most 3 known locations in the province.

Preliminary Recovery Information

Recovery feasibility:
MB: Uncertain at this time. A recovery strategy is needed to assess the feasibility of recovery.

SK: To be determined

Recovery approach: Approach would be determined by responsible jurisdictions and recovery delivery would occur at a provincial scale. Recovery strategies and action plans would need to be developed and/or implemented in consultation with responsible jurisdictions, partners, significant stakeholders, and others as appropriate.

MB: In addition to current recovery actions listed above, there is a need for research on best management practices for the species. A population viability analysis may provide additional information on whether Canadian populations are viable in the long-term.

SK: The species appears to be at limit of range in Sask. Approach is to maintain the small extant populations and possibly establish several new ones as part of restoration work.

Lead jurisdiction / representative: EC-CWS will facilitate the development of the national recovery strategy by responsible jurisdictions (Contact: Dean Nernberg).

Other responsible jurisdictions / representatives:
SK: Earl Wiltse; **MB:** Jason Greenall

Deadline for the production of the national recovery strategy:
Responsible agencies will provide for the development of the national recovery strategy by March 31, 2005.

28. Response Statement for Lyall's Mariposa Lily

By Responsible Jurisdiction: British Columbia

COSEWIC Species Information

Common Name: Lyall's Mariposa Lily

Scientific Name: *Calochortus lyallii*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: Very few highly localized populations occupying a very small area but are generally present as large populations of many thousands of plants with threats from cattle grazing and loss of habitat from afforestation.

Occurrence: British Columbia

COSEWIC Status History: Designated Threatened in May 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply: Plants within the Richter Grasslands Protected Area are subject to provisions of the Protected Areas of British Columbia Act which require a valid and subsisting park use permit before they can be destroyed, damaged or disturbed.

Current or immediate recovery actions: Lyall's Mariposa Lily occurs within the purview of the South Okanagan – Similkameen Conservation Program (SOSCP) which takes a landscape-based approach to the conservation of species at risk. A Recovery Action Group is currently being organized to cover red- and blue-listed species in SOSCP ecosystems and will develop a Recovery Action Plan. BC Ministry of Water, Land and Air Protection, Biodiversity Branch is a member of SOSCP.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing to nationally of special concern) is feasible.

Recovery approach: The SOSCP's strategies are to "expand community involvement, promote ecologically sustainable land-use, enhance stewardship on private and public land, and negotiate acquisition of key habitats." Partner agencies involved in land management in the region include: the Canadian Wildlife Service; the BC Ministry of Water Land and Air Protection; the Nature

Trust of BC; the Land Conservancy; the Nature Conservancy of Canada; and the Grassland Conservation Council of BC. Important stakeholders such as landowners and First Nations groups are regularly consulted by the SOSCP, and their involvement will be integral to the recovery of Lyall's Mariposa Lily.

Research into the ecology of this species is urgently needed, in order to make well-informed decisions about habitat protection and stewardship. Interim actions will focus on protecting areas where Lyall's Mariposa Lily is known to occur through stewardship, acquisition, and public education.

Lead jurisdiction/representative: BC Ministry of Water, Land and Air Protection, Biodiversity Branch

Deadline for the production of the recovery strategy: May 31, 2003

29. Response Statement for the Purple Sanicle

By Responsible Jurisdictions: British Columbia, Environment Canada-Canadian Wildlife Service (Pacific and Yukon Region)

COSEWIC Species Information

Common Name: Purple Sanicle

Scientific Name: *Sanicula bipinnatifida*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: Geographically restricted species with small area of occupancy in Garry oak communities within a major urbanized region at risk from habitat loss and degradation and impact of exotic plants.

Occurrence : British Columbia

COSEWIC Status History: Designated Threatened in May 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply: BC does not presently have automatic prohibitions that apply to COSEWIC-listed threatened or endangered plants. Plants within BC Parks, Ecological Reserves and Protected Areas are subject to provisions of the Protected Areas of British Columbia Act which require a valid and subsisting park use permit before they can be destroyed damaged or disturbed. *Sanicula bipinnatifida* occurs in Helliwell and Dionisio Point Provincial Parks and Oak Bay Islets and Mount Tzuhalem Ecological Reserves.

Federal species at risk legislation is pending but not yet in place. The species occurs on Department of National Defence lands.

Current or immediate recovery actions: Purple Sanicle occurs within the purview of the Garry Oak Ecosystem Recovery Team (GOERT) which takes a landscape-based approach to the conservation of species at risk. A Recovery Action Group is currently being organized to cover red- and blue-listed species in GOERT ecosystems and will develop a Recovery Action Plan. EC-CWS and BC Ministry of Water, Land and Air Protection, Biodiversity Branch are partners in GOERT.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing to nationally of special concern) is feasible.

Recovery approach: The GOERT long-term recovery goals for ecosystems and species are:
1) to establish a network of Garry oak and associated ecosystem sites and landscape linkages that:

- is representative of the full range of ecosystem variation across the geographic range in Canada;
- sustains all the critical processes over the long term; and
- supports the full range of native biota over the long term.

2) to improve and secure the status of all species at risk in Garry oak and associated ecosystems, except those that are globally extinct, so that they no longer have at-risk status.

Partner land management agencies involved in GOERT include: the Canadian Wildlife Service; the BC Ministry of Water, Land and Air Protection; the BC Ministry of Forests; the Capital Regional District; the Land Conservancy; the Nature Conservancy of Canada; and Parks Canada. Other partners in GOERT include a number of volunteer organizations including the Garry Oak Meadows Preservation Society. Important stakeholders such as landowners and First Nations groups are regularly consulted by the GOERT, and their involvement will be integral to the recovery of Purple Sanicle.

Research into the ecology of this species is urgently needed, in order to make well-informed decisions about habitat protection and stewardship. Interim actions will focus on protecting areas where Purple Sanicle is known to occur through stewardship, acquisition, and public education.

Responsible jurisdictions: BC Ministry of Water, Land and Air Protection, Biodiversity Branch is the lead jurisdiction for recovery. EC-CWS (Pacific Yukon Region) has participatory responsibility due to occurrence on Department of National Defence land. Federal agencies are on the recovery team and are also on the Plants Recovery Action Group (under the GOERT) that is developing the action plan for the listed plant species within the Garry Oak ecosystem type. EC-CWS will not be creating a separate group to deal with this species alone.

Deadline for the production of the recovery strategy: Recovery actions are being developed by the GOERT.

30. Response Statement for Scouler's Corydalis

By Responsible Jurisdiction: British Columbia

COSEWIC Species Information

Common Name: Scouler's Corydalis

Scientific Name: *Corydalis scouleri*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: A perennial herb of restricted range, reproducing extensively by vegetative means with limited seed production and dispersal capability and occupying riverside forest habitats at risk from logging operations.

Occurrence: British Columbia

COSEWIC Status History: Designated Threatened in May 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply: BC does not presently have automatic prohibitions that apply to COSEWIC-listed threatened or endangered plants. Plants within BC Parks, Ecological Reserves and Protected Areas are subject to provisions of the Protected Areas of British Columbia Act which require a valid and subsisting park use permit before they can be destroyed, damaged or disturbed. There are populations of *Corydalis scouleri* in Nitinat River Provincial Park and Klanawa River Ecological Reserve.

Current or immediate recovery actions: Scouler's Corydalis is a candidate species under the Identified Wildlife Management Strategy of the Forest Practices Code of British Columbia Act. Designation as Identified Wildlife enables the establishment of Wildlife Habitat Areas to protect populations from forestry activities.

Preliminary Recovery Information

Recovery feasibility: Recovery (down-listing to nationally of special concern) is feasible.
Recovery approach: Ensure extant populations are provided long-term protection from logging operations and public access.
Lead jurisdiction/representative: BC Ministry of Water, Land and Air Protection, Biodiversity Branch

Deadline for the production of the recovery strategy: May 31, 2003

31. Response Statement for Butler's Gartersnake

By Responsible Jurisdictions: Ontario, Environment Canada-Canadian Wildlife Service (Ontario Region)

COSEWIC Species Information

Common Name: Butler's Gartersnake

Scientific Name: *Thamnophis butleri*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: This snake occurs in only three small and isolated areas in southwestern Ontario. Its range has declined because of habitat loss, primarily from agriculture. The remaining populations are highly restricted and fragmented.

Occurrence: Ontario

COSEWIC Status History: Designated Threatened in November 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:

ON: Butler's Garter Snake is listed as a Specially Protected Reptile in Schedule 9 under the Fish and Wildlife Conservation Act, 1997 (FWCA). This protects the species against killing, capture, hunting or trapping with certain exceptions where the Minister may authorize the keeping of specially protected species in captivity for educational or scientific purposes. The FWCA also controls the possession, buying, selling or trading of the specially protected species.

The habitat of this nationally threatened species occurring on private land is protected by provisions of Section 2.3.1 of the Provincial Policy Statement under the Planning Act. Municipalities are required to "have regard to" the Provincial Policy Statement. Section 2.3.1 states: "Development and site alteration will not be permitted in significant portions of the habitat of endangered and threatened species."

EC-CWS: The Butler's Gartersnake occurs on Walpole Island, an Indian Reserve and the home of the Walpole Island First Nation.

Current or immediate Recovery Actions:

ON: In 1998, World Wildlife Fund Canada and the Ontario Ministry of Natural Resources produced and published a Tallgrass Communities Recovery Plan. The Recovery Plan goal is to recover, reconstruct and conserve a representative network of tallgrass communities and to recover and protect the full complement of plant and animal life that makes up these diverse ecological communities.

Although Butler's Garter Snake is not exclusively a prairie species, it is one of several species being addressed under an ecosystem-based recovery plan for the tallgrass communities ecosystem.

Ontario is contributing to the recovery of Butler's Garter Snake by identifying habitat requirements, and by participating with Tallgrass Ontario in the maintenance and enhancement of healthy populations of tallgrass prairie in southwestern Ontario.

EC-CWS: Environment Canada, in partnership with Walpole Island First Nation, will work to ensure that Butler's Gartersnake is taken into consideration during the ecosystem project that is currently underway on Walpole Island.

Preliminary Recovery Information

Recovery feasibility: Typical habitat in Ontario is dense grass cover in open areas near ditches, seasonally dry marshes or other small water bodies. As this type of habitat is used by a variety of species, ensuring that the requirements of Butler's Gartersnake are met should be possible, if these areas are managed using an ecosystem approach. Maintaining populations on municipal airport lands may be more of a challenge, however, snake populations are beneficial on these areas as they help to control other small animal populations that draw predators into the area that may pose a threat to aircraft operation.

Recovery approach: The Ontario Ministry of Natural Resources and Environment Canada-Canadian Wildlife Service will participate in the formation of a National Recovery Team that will initiate recovery planning for this species. In the short term, better information is needed on population size, distribution, productivity and survival.

Responsible jurisdictions/Co-Leads:
ON: Steve Bowcott
EC-CWS: Robert Wenting

References:

- Environment Canada. 2001. Butler's Gartersnake. Species at Risk Web site: http://www.speciesatrisk.gc.ca/species/English/SearchDetail.cfm?SpeciesID=588
- Sandilands, A.P. 1998. COSEWIC Status Report on Butler's Garter Snake *Thamnophis butleri*. Committee on the Status of Endangered Wildlife in Canada. 21pp.

32. Response Statement for Eastern Hog-nosed Snake

By Responsible Jurisdictions: Ontario and Parks Canada Agency

COSEWIC Species Information

Common Name: Eastern Hog-nosed Snake

Scientific Name: *Heterodon platirhinos*

Assessment Summary

COSEWIC Status: Threatened

Reason for Designation: The Eastern Hog-nosed snake is rare and decreasing in abundance and area of occurrence. It suffers from loss of habitat and is unusually susceptible to persecution by people because it is a large snake that has a threatening, though harmless, defensive display. Also, it is unusually vulnerable to road traffic because it moves slowly.

Occurrence: Ontario

Status History: Designated Threatened in November 2001.

Immediate Conservation and Protection Measures

Proposed or current legal designation in Canada, and automatic prohibitions that will apply:
ON: The Eastern Hog-nosed Snake is listed as a Specially Protected Reptile in Schedule 9 under the Fish and Wildlife Conservation Act (FWCA). This protects the species against killing, capture, hunting or trapping with certain exceptions where the Minister may authorize the keeping of specially protected species in captivity for educational or scientific purposes. The FWCA also controls the possession, buying, selling or trading of the species.

The habitat of this nationally threatened species occurring on private land is protected by provisions of Section 2.3.1 of the Provincial Policy Statement under the Planning Act. Municipalities are required to "have regard to" the Provincial Policy Statement. Section 2.3.1 states: "Development and site alteration will not be permitted in significant portions of the habitat of endangered and threatened species."

PCA: The Canada National Parks Act and Regulations provide for the protection of wildlife in national parks. Penalties are imposed for killing, injuring, seizing, disturbing, capturing, trapping, trafficking and possessing individuals or parts of wildlife in national parks.

Current or immediate recovery actions: No formal recovery actions are currently underway, however the species is targeted for conservation and education efforts by the Georgian Bay Reptile Awareness Project, a partnership

of government and non-government conservation groups. It is also the subject of population monitoring in Rondeau Provincial Park and Wasaga Beach Provincial Park.

Preliminary Recovery Information

Recovery feasibility: To be determined by a National Recovery Team

Recovery approach: To be determined by a National Recovery Team

Responsible jurisdiction and contact:
ON: Steve Bowcott
PCA: Kristine Mannion